

PART 116—DESIGNATION OF HAZARDOUS SUBSTANCES

Sec.

- 116.1 Applicability.
- 116.2 Abbreviations.
- 116.3 Definitions.
- 116.4 Designation of hazardous substances.

AUTHORITY: Secs. 311(b)(2)(A) and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

§ 116.1 Applicability.

This regulation designates hazardous substances under section 311(b)(2)(A) of the Federal Water Pollution Control Act (the Act). The regulation applies to discharges of substances designated in Table 116.4.

[43 FR 10474, Mar. 13, 1978]

§ 116.2 Abbreviations.

ppm=parts per million
mg=milligram(s)
kg=kilogram(s)
mg/l=milligrams(s) per liter=(approx.) ppm
mg/kg=milligram(s) per kilogram=(approx.) ppm

[43 FR 10474, Mar. 13, 1978]

§ 116.3 Definitions.

As used in this part, all terms shall have the meaning defined in the Act and as given below:

The Act means the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500), and as further amended by the Clean Water Act of 1977 (Pub. L. 95-217), 33 U.S.C. 1251 et seq.; and as further amended by the Clean Water Act Amendments of 1978 (Pub. L. 95-676);

Animals means appropriately sensitive animals which carry out respiration by means of a lung structure permitting gaseous exchange between air and the circulatory system;

Aquatic animals means appropriately sensitive wholly aquatic animals which carry out respiration by means of a gill structure permitting gaseous exchange between the water and the circulatory system;

Aquatic flora means plant life associated with the aquatic eco-system including, but not limited to, algae and higher plants;

Contiguous zone means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone;

Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping, but excludes (A) discharges in compliance with a permit under section 402 of this Act, (B) discharges resulting from cir-

cumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of this Act, and subject to a condition in such permit, and (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of this Act, which are caused by events occurring within the scope of relevant operating or treatment systems;

LC50 means that concentration of material which is lethal to one-half of the test population of aquatic animals upon continuous exposure for 96 hours or less.

Mixture means any combination of two or more elements and/or compounds in solid, liquid, or gaseous form except where such substances have undergone a chemical reaction so as to become inseparable by physical means.

Navigable waters is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas," and includes, but is not limited to:

(1) All waters which are presently used, or were used in the past, or may be susceptible to use as a means to transport interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide, and including adjacent wetlands; the term *wetlands* as used in this regulation shall include those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas; the term *adjacent* means bordering, contiguous or neighboring;

(2) Tributaries of navigable waters of the United States, including adjacent wetlands;

(3) Interstate waters, including wetlands; and

(4) All other waters of the United States such as intrastate lakes, rivers, streams, mudflats, sandflats and wetlands, the use, degradation or destruction of which affect interstate commerce including, but not limited to:

(i) Intrastate lakes, rivers, streams, and wetlands which are utilized by interstate travelers for recreational or other purposes; and

(ii) Intrastate lakes, rivers, streams, and wetlands from which fish or shellfish are or could be taken and sold in interstate commerce; and

(iii) Intrastate lakes, rivers, streams, and wetlands which are utilized for industrial purposes by industries in interstate commerce.

Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean

§ 116.4

Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Offshore facility means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

Onshore facility means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

Otherwise subject to the jurisdiction of the United States means subject to the jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided for by international agreement to which the United States is a party.

A discharge *in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976)*, means: (1) A discharge into any waters beyond the contiguous zone from any vessel or onshore or offshore facility, which vessel or facility is subject to or is engaged in activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, and (2) any discharge into any waters beyond the contiguous zone which contain, cover, or support any natural resource belonging to, ap-

pertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

Public vessel means a vessel owned or bareboat-chartered and operated by the United States, or a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

Territorial seas means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

[43 FR 10474, Mar. 13, 1978; 43 FR 27533, June 26, 1978, as amended at 44 FR 10266, Feb. 16, 1979; 58 FR 45039, Aug. 25, 1993]

§ 116.4 Designation of hazardous substances.

The elements and compounds appearing in Tables 116.4 A and B are designated as hazardous substances in accordance with section 311(b)(2)(A) of the Act. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Synonyms and Chemical Abstract System (CAS) numbers have been added for convenience of the user only. In case of any disparity the common names shall be considered the designated substance.

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetaldehyde	75070	Ethanal, ethyl aldehyde, acetic aldehyde .....	.....	.....
Acetic acid	64197	Glacial acetic acid, vinegar acid .....	.....	.....
Acetic anhydride	108247	Acetic oxide, acetyl oxide .....	.....	.....
Acetone cyanohydrin	75865	2-methylacetonitrile, alpha-hydroxyisobutyronitrile.	.....	.....
Acetyl bromide	506967	.....	.....	.....
Acetyl chloride	79367	.....	.....	.....
Acrolein	107028	2-propenal, acrylic aldehyde, acrylaldehyde, acraldehyde.	.....	.....
Acrylonitrile	107131	Cyanoethylene, Fumigrain, Ventox, propenonitrile, vinyl cyanide.	.....	.....
Adipic acid	124049	Hexanedioic acid .....	.....	.....
Aldrin	309002	Octalene, HHDN .....	.....	.....
Allyl alcohol	107186	2-propen-1-ol, 1-propenol-3, vinyl carbinol .....	.....	.....
Allyl chloride	107051	3-chloropropene, 3-chloropropylene, Chlorallylene.	.....	.....
Aluminum sulfate	10043013	Alum .....	.....	.....
Ammonia	7664417	.....	.....	.....
Ammonium acetate	631618	Acetic acid ammonium, salt .....	.....	.....
Ammonium benzoate	1863634	.....	.....	.....
Ammonium bicarbonate	1066337	Acid ammonium carbonate, ammonium hydrogen carbonate.	.....	.....
Ammonium bichromate	7789095	.....	.....	.....
Ammonium bifluoride	1341497	Acid ammonium fluoride, ammonium hydrogen fluoride.	.....	.....
Ammonium bisulfite	10192300	.....	.....	.....

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Ammonium carbamate	1111780	Ammonium aminoformate .....	.....	.....
Ammonium carbonate	506876	.....	.....	.....
Ammonium chloride	12125029	Ammonium muriate, sal ammoniac, salmiac, Amchlor.	.....	.....
Ammonium chromate	7788989	.....	.....	.....
Ammonium citrate dibasic	3012655	Diammonium citrate, citric acid diammonium salt.	.....	.....
Ammonium fluoborate	13826830	Ammonium fluoroborate, ammonium borofluoride.	.....	.....
Ammonium fluoride	12125018	Neutral ammonium fluoride .....	.....	.....
Ammonium hydroxide	1336216	.....	.....	.....
Ammonium oxalate	6009707	.....	.....	.....
	5972736	.....	.....	.....
	14258492	.....	.....	.....
Ammonium silicofluoride	16919190	Ammonium fluosilicate .....	.....	.....
Ammonium sulfamate	7773060	Ammate, AMS, ammonium amidosulfate .....	.....	.....
Ammonium sulfide	12135761	.....	.....	.....
Ammonium sulfite	10196040	.....	.....	.....
	10192300	.....	.....	.....
Ammonium tartrate	3164292	Tartaric acid ammonium salt .....	.....	.....
	14307438	.....	.....	.....
Ammonium thiocyanate	1762954	Ammonium rhodanide, ammonium sulfonycyanate, ammonium sulfocyanide.	.....	.....
Amyl acetate	628637	Amylacetate ester	iso-	123922
		Pear oil	sec-	626380
		Banana oil	tert-	625161
Aniline	62533	Aniline oil, phenylamine, aminobenzene, aminophen, kyanol.	.....	.....
Antimony pentachloride	7647189	.....	.....	.....
Antimony potassium tartrate	28300745	Tartar emetic, tartrated antimony, tartarized antimony, potassium antimonytartrate.	.....	.....
Antimony tribromide	7789619	.....	.....	.....
Antimony trichloride	10025919	Butter of antimony .....	.....	.....
Antimony trifluoride	7783564	Antimony fluoride .....	.....	.....
Antimony trioxide	1309644	Diantimony trioxide, flowers of antimony .....	.....	.....
Arsenic disulfide	1303328	Red arsenic sulfide .....	.....	.....
Arsenic pentoxide	1303282	Arsenic acid anhydride, arsenic oxide .....	.....	.....
Arsenic trichloride	7784341	Arsenic chloride, arsenious chloride, arsenous chloride, butter of arsenic.	.....	.....
Arsenic trioxide	1327533	Arsenious acid, arsenious oxide, white arsenic .....	.....	.....
Arsenic trisulfide	1303339	Arsenious sulfide, yellow arsenic sulfide .....	.....	.....
Barium cyanide	542621	.....	.....	.....
Benzene	71432	Cyclohexatriene, benzol .....	.....	.....
Benzoinic acid	65850	Benzene carboxylic acid, phenylformic acid, dicyclic acid.	.....	.....
Benzonitrile	100470	Phenyl cyanide, cyanobenzene .....	.....	.....
Benzoyl chloride	98884	Benzene carbonyl chloride .....	.....	.....
Benzyl chloride	100447	.....	.....	.....
Beryllium chloride	7787475	.....	.....	.....
Beryllium fluoride	7787497	.....	.....	.....
Beryllium nitrate	7787555	.....	.....	.....
	13597994	.....	.....	.....
Butyl acetate	123864	Acetic acid butyl ester	iso-	110190
			sec-	105464
			tert-	540885
Butylamine	109739	1-aminobutane	iso-	78819
			sec-	513495
			sec-	13952846
n/butyl phthalate	84742	1,2-benzenedicarboxylic acid, dibutyl ester, dibutyl phthalate.	tert-	75649
Butyric acid	107926	Butanoic acid, ethylacetic acid	iso-	79312
Cadmium acetate	543908	.....	.....	.....
Cadmium bromide	7789426	.....	.....	.....
Cadmium chloride	10108642	.....	.....	.....
Calcium arsenate	7778441	Tricalcium orthoarsenate .....	.....	.....
Calcium arsenite	52740166	.....	.....	.....
Calcium carbide	75207	Carbide, acetylenogen .....	.....	.....
Calcium chromate	13765190	Calcium chrome yellow, geblin, yellow ultramarine.	.....	.....
Calcium cyanide	592018	.....	.....	.....
Calcium dodecybenzenesulfonate	26264062	.....	.....	.....

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Calcium hypochlorite	7778543	.....	.....	.....
Captan	133062	Orthocide-406, SR-406, Vancide-89 .....	.....	.....
Carbaryl	63252	Sevin .....	.....	.....
Carbofuran	1563662	Furadan .....	.....	.....
Carbon disulfide	75150	Carbon bisulfide, dithiocarbonic anhydride .....	.....	.....
Carbon tetrachloride	56235	Tetrachloromethane Perchloromethane .....	.....	.....
Chlordane	57749	Toxicchlor, chlordan .....	.....	.....
Chlorine	75003	.....	.....	.....
Chlorobenzene	108907	Monochlorobenzene, benzene chloride .....	.....	.....
Chloroform	67663	Trichloromethane .....	.....	.....
Chlorpyrifos	2921882	Dursban .....	.....	.....
Chlorosulfonic acid	7790945	Sulfuric chlorohydrin .....	.....	.....
Chromic acetate	10666304	.....	.....	.....
Chromic acid	11115745	Chromic anhydride, chromium trioxide .....	.....	.....
Chromic sulfate	10101538	.....	.....	.....
Chromous chloride	10049055	.....	.....	.....
Cobaltous bromide	7789437	Cobalt bromide .....	.....	.....
Coabaltous formate	544183	Cobalt formate .....	.....	.....
Cobaltous sulfamate	14017415	Cobalt sulfamate .....	.....	.....
Coumaphos	56724	Co-Ral .....	.....	.....
Cresol	1319773	Cresylic acid	m-	108394
		Hydroxytoluene	o-	95487
		.....	p-	106445
Crotonaldehyde	4170303	2-butenal propylene aldehyde .....	.....	.....
Cupric acetate	142712	Copper acetate, crystalized verdigris .....	.....	.....
Cupric acetoarsenite	12002038	Copper acetoarsenite, copper acetate arsenite, Paris green.	.....	.....
Cupric chloride	7447394	Copper chloride .....	.....	.....
Cupric nitrate	3251238	Copper nitrate .....	.....	.....
Cupric oxalate	5893663	Copper oxalate .....	.....	.....
Cupric sulfate	7758987	Copper sulfate .....	.....	.....
Cupric sulfate, ammoniated	10380297	Ammoniated copper sulfate .....	.....	.....
Cupric tartrate	815827	Copper tartrate .....	.....	.....
Cyanogen chloride	506774	.....	.....	.....
Cyclohexane	110827	Hexahydrobenzene, hexamethylene, hexaphthene.	.....	.....
2,4-D acid	94757	2,4-dichlorophenoxyacetic acid .....	.....	.....
2,4-D ester	944111	2,4-dichlorophenoxyacetic acid ester .....	.....	.....
	94791	.....	.....	.....
	94804	.....	.....	.....
	1320189	.....	.....	.....
	1928387	.....	.....	.....
	1928616	.....	.....	.....
	1929733	.....	.....	.....
	29711382	.....	.....	.....
	25168267	.....	.....	.....
	53467111	.....	.....	.....
DDT	50293	p,p'-DDT .....	.....	.....
Diazinon	333415	Dipofene, Diazitol, Basudin, Spectracide .....	.....	.....
Dicamba	1918009	2-methoxy-3,6-dichlorobenzoic acid .....	.....	.....
Dichlobenil	1194656	2,6-dichlorobenzonitrile, 2,6-DBN .....	.....	.....
Dichlone	117806	Phygon, dichloronaphthoquinone .....	.....	.....
Dichlorobenzene	25321226	Di-chloricide	Ortho	95501
Dichloropropane	26638197	Propylene dichloride	Para	106467
		.....	1,1	78999
		.....	1,2	78875
		.....	1,3	142289
		.....	2,3	542756
Dichloropropene	26952238	.....	.....	78886
Dichloropropene-dichloropropane (mixture)	8003198	D-D mixture Vidden D .....	.....	.....
2,2-Dichloropropionic acid	75990	Dalapon .....	.....	.....
Dichlorvos	62737	2,2-dichlorovinyl dimethyl phosphate, Vapona .....	.....	.....
Dicofol	115322	Di(p-chlorophenyl)-trichloromethylcarbinol, DTMC, dicofol.	.....	.....
Dieldrin	60571	Alvit .....	.....	.....
Diethylamine	109897	.....	.....	.....
Dimethylamine	124403	.....	.....	.....
Dinitrobenzene (mixed)	25154545	Dinitrobenzol	m-	99650
		.....	o-	528290
		.....	p-	100254
Dinitrophenol	51285	Aldifen	(2,5-)	329715

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Dinitrotoluene	25321146	DNT	(2,4-), (2,6-)	573568
Diquat	85007	Aquacide	2,4	121142
Disulfoton	2764729	Dextrone, Reglone, Diquat dibromide	2,6	606202
Diuron	298044	Di-syston	3,4	610399
Dodecybenzenesulfonic acid	330541	DCMU, DMU .....	.....	.....
Endosulfan	27176870	.....	.....	.....
Endrin	115297	Thiodan .....	.....	.....
Epichlorohydrin	72208	Mendrin, Compound 269 .....	.....	.....
Ethion	106898	-chloropropylene oxide .....	.....	.....
Ethylbenzene	563122	Nialate, ethyl methylene, phosphorodithioate .....	.....	.....
Ethylenediamine	100414	Phenylethane .....	.....	.....
Ethylenediamine-tetraacetic acid (EDTA)	107153	1,2-diaminoethane .....	.....	.....
Ethylene dibromide	60004	Edetic acid, Havidote, (ethylenedinitriilo)-tetraacetic acid .....	.....	.....
Ethylene dichloride	106934	1,2-dibromoethane acetylene dibromide sym-dibromoethylene .....	.....	.....
Ferric ammonium citrate	107062	1,2-dichloroethane sym-bichloroethane .....	.....	.....
Ferric ammonium oxalate	1185575	Ammonium ferric citrate .....	.....	.....
Ferric chloride	2944674	Ammonium ferric oxalate .....	.....	.....
Ferric fluoride	55488874	.....	.....	.....
Ferric nitrate	7705080	Flores martis, iron trichloride .....	.....	.....
Ferric sulfate	7783508	.....	.....	.....
Ferrous ammonium sulfate	10421484	Iron nitrate .....	.....	.....
Ferrous chloride	10028225	Ferric persulfate, ferric sesquisulfate, ferric tersulfate .....	.....	.....
Ferrous sulfate	10045893	.....	.....	.....
Formaldehyde	7720787	Mohr's salt, iron ammonium sulfate .....	.....	.....
Formic acid	7782630	Iron chloride, iron dichloride, iron protochloride .....	.....	.....
Fumaric acid	50000	Green vitriol .....	.....	.....
Furfural	64186	Iron vitriol, iron sulfate, iron protosulfate .....	.....	.....
Guthion	110178	Methyl aldehyde, methanal, formalin .....	.....	.....
Heptachlor	98011	Methanoic acid .....	.....	.....
Hexachlorocyclopentadiene	86500	Trans-butenedioic acid, trans-1,2-ethylenedicarboxylic acid, boletic acid, allomaleic acid .....	.....	.....
Hydrochloric acid	76448	2-furaldehyde, pyromucic aldehyde .....	.....	.....
Hydrofluoric acid	77474	Gusathion, azinphos-methyl .....	.....	.....
Hydrogen cyanide	7647010	Velsicol-104, Drinox, Heptagran .....	.....	.....
Hydrogen sulfide	7664393	Perchlorocyclopentadiene .....	.....	.....
Isoprene	74908	Hydrogen chloride, muriatic acid .....	.....	.....
Isopropanolamine dodecylbenzenesulfonate	7783064	Fluorhydric acid .....	.....	.....
Kepone	78795	Hydrocyanic acid .....	.....	.....
Lead acetate	42504461	Hydrosulfuric acid sulfur hydride .....	.....	.....
Lead arsenate	143500	2-methyl-1,3-butadiene .....	.....	.....
Lead chloride	301042	.....	.....	.....
Lead fluoborate	7784409	Chlordecone 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(cd)pentalen-2-one. Sugar of lead .....	.....	.....
Lead fluoride	7645252	.....	.....	.....
Lead iodide	10102484	.....	.....	.....
Lead nitrate	7758954	.....	.....	.....
Lead stearate	13814965	Stearic acid lead salt .....	.....	.....
Lead sulfate	7783462	.....	.....	.....
Lead sulfide	1314870	.....	.....	.....
Lead thiocyanate	592870	.....	.....	.....
Lindane	58899	.....	.....	.....
Lithium chromate	14307358	.....	.....	.....
Malathion	121755	.....	.....	.....
Maleic acid	110167	Phosphothion .....	.....	.....
		Cis-butenedioic acid, cis-1,2-ethylenedicarboxylic acid, toxic acid .....	.....	.....

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Maleic anhydride	108316	2,5-furandione, cis-butenedioic anhydride, toxicic anhydride.	.....	.....
Mercaptodimethur	203657	Mesurol .....	.....	.....
Mercuric cyanide	592041	Mercury cyanide .....	.....	.....
Mercuric nitrate	10045940	Mercury nitrate, mercury pernitrate .....	.....	.....
Mercuric sulfate	7783359	Mercury sulfate, mercury persulfate .....	.....	.....
Mercuric thiocyanate	592858	Mercury thiocyanate, mercuric sulfocyanate, mercuric sulfocyanide.	.....	.....
Mercurous nitrate	7782867	Mercury protonitrate .....	.....	.....
Methoxychlor	10415755	DMDT, methoxy-DDT .....	.....	.....
Methyl mercaptan	72435	Methanethiol, mercaptomethane, methyl sulphydrate, thiomethyl alcohol.	.....	.....
Methyl methacrylate	74931	.....	.....	.....
Methyl methacrylate	80626	Methacrylic acid methyl ester, methyl-2-methyl-2-propenoate.	.....	.....
Methyl parathion	298000	Nitrox-80 .....	.....	.....
Mevinphos	7786347	Phosdrin .....	.....	.....
Mexacarbate	315184	Zectran .....	.....	.....
Monoethylamine	75047	Ethylamine, aminoethane .....	.....	.....
Monomethylamine	74895	Methylamine, aminomethane .....	.....	.....
Naled	300765	Dibrom .....	.....	.....
Naphthalene	91203	White tar, tar camphor, naphthalin .....	.....	.....
Naphthenic acid	1338245	Cyclohexanecarboxylic acid, hexahydrobenzoic acid.	.....	.....
Nickel ammonium sulfate	15699180	Ammonium nickel sulfate .....	.....	.....
Nickel chloride	37211055	Nickelous chloride .....	.....	.....
Nickel hydroxide	7718549	.....	.....	.....
Nickel nitrate	12054487	Nickelous hydroxide .....	.....	.....
Nickel sulfate	14216752	.....	.....	.....
Nitric acid	7786814	Nickelous sulfate .....	.....	.....
Nitrobenzene	7697372	Aqua fortis .....	.....	.....
Nitrobenzene, oil of mirbane	98953	Nitrobenzol, oil of mirbane .....	.....	.....
Nitrogen dioxide	10102440	Nitrogen tetroxide	m-	554847
Nitrophenol (mixed)	25154556	Mononitrophenol	o-	88755
Nitrotoluene	1321126	.....	p-	100027
Paraformaldehyde	30525894	Paraform, Formagene, Triformol, polymerized formaldehyde, polyoxymethylene.	Ortho	88722
Parathion	56382	DNTP, Niram	Meta	99081
Pentachlorophenol	87865	PCP, Penta	Para	99990
Phenol	108952	Carbolic acid, phenyl hydroxide, hydroxybenzene, oxybenzene.	.....	.....
Phosgene	75445	Diphosgene, carbonyl chloride, chloroformyl chloride.	.....	.....
Phosphoric acid	7664382	Orthophosphoric acid .....	.....	.....
Phosphorus	7723140	Black phosphorus, red phosphorus, white phosphorus, yellow phosphorus.	.....	.....
Phosphorus oxychloride	10025873	Phosphoryl chloride, phosphorus chloride .....	.....	.....
Phosphorus pentasulfide	1314803	Phosphoric sulfide, thiophosphoric anhydride, phosphorus persulfide.	.....	.....
Phosphorus trichloride	7719122	Phosphorous chloride .....	.....	.....
Polychlorinated biphenyls	1336363	PCB, Aroclor, polychlorinated diphenyls .....	.....	.....
Potassium arsenate	7784410	.....	.....	.....
Potassium arsenite	10124502	Potassium metaarsenite .....	.....	.....
Potassium bichromate	7778509	Potassium dichromate .....	.....	.....
Potassium chromate	7789006	.....	.....	.....
Potassium cyanide	151508	.....	.....	.....
Potassium hydroxide	1310583	Potassium hydrate, caustic potash, potassa .....	.....	.....
Potassium permanganate	7722647	Chameleon mineral .....	.....	.....
Propargite	2312358	Omite .....	.....	.....
Propionic acid	79094	Propanoic acid, methylacetic acid, ethylformic acid.	.....	.....
Propionic anhydride	123626	Propanoic anhydride, methylacetic anhydride ..	.....	.....
Propylene oxide	75569	Propene oxide .....	.....	.....
Pyrethrins	121299	Pyrethrin I .....	.....	.....
Quinoline	121211	Pyrethrin II .....	.....	.....
Resorcinol	91225	1-benzazine, benzo(b)pyridine, leucomine, chinoleine, leuconol.	.....	.....
Resorcinol	108463	Resorcin, 1,3-benzenediol, meta-dihydroxybenzene.	.....	.....

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Selenium oxide	7446084	Selenium dioxide .....	.....	.....
Silver nitrate	7761888	Nitric acid silver (1+) salt lunar caustic .....	.....	.....
Sodium	7440235	Natrium .....	.....	.....
Sodium arsenate	7631892	Disodium arsenate .....	.....	.....
Sodium arsenite	7784465	Sodium metaarsenite .....	.....	.....
Sodium bichromate	10588019	Sodium dichromate .....	.....	.....
Sodium bifluoride	1333831	.....	.....	.....
Sodium bisulfite	7631905	Sodium acid sulfite, sodium hydrogen sulfite .....	.....	.....
Sodium chromate	7775113	.....	.....	.....
Sodium cyanide	143339	.....	.....	.....
Sodium dodecylbenzene-sulfonate	25155300	.....	.....	.....
Sodium fluoride	7681494	Villiaumite .....	.....	.....
Sodium hydrosulfide	16721805	Sodium hydrogen sulfide .....	.....	.....
Sodium hydroxide	1310732	Caustic soda, soda lye, sodium hydrate .....	.....	.....
Sodium hypochlorite	7681529	Bleach .....	.....	.....
Sodium methylate	10022705	.....	.....	.....
Sodium nitrite	124414	Sodium methoxide .....	.....	.....
Sodium phosphate, dibasic	7632000	.....	.....	.....
Sodium phosphate, tribasic	7558794	.....	.....	.....
Sodium phosphate, tribasic	10039324	.....	.....	.....
Sodium phosphate, tribasic	10140655	.....	.....	.....
Sodium selenite	7785844	.....	.....	.....
Sodium selenite	7601549	.....	.....	.....
Sodium selenite	10101890	.....	.....	.....
Sodium selenite	10361894	.....	.....	.....
Sodium selenite	7758294	.....	.....	.....
Sodium selenite	10124568	.....	.....	.....
Sodium selenite	10102188	.....	.....	.....
Sodium selenite	7782823	.....	.....	.....
Strontium chromate	7789062	.....	.....	.....
Strychnine	57249	.....	.....	.....
Styrene	100425	Vinylbenzene, phenylethylene, styrol, styrole, cinnamene, cinnamol.	.....	.....
Sulfuric acid	7664939	Oil of vitriol, oleum .....	.....	.....
Sulfur monochloride	12771083	Sulfur chloride .....	.....	.....
2,4,5-T acid	93765	2,4,5-trichlorophenoxyacetic acid .....	.....	.....
2,4,5-T amines	6369966	Acetic acid (2,4,5-trichlorophenoxy)-compound with N,N-dimethylmethanamine (1:1).	.....	.....
2,4,5-T esters	6369977	Acetic acid (2,4,5-trichlorophenoxy)-compound with N-methylmethanamine (1:1).	.....	.....
2,4,5-T esters	1319728	Acetic acid (2,4,5-trichlorophenoxy)-compound with 1-amino-2-propanol (1:1).	.....	.....
2,4,5-T esters	3813147	Acetic acid (2,4,5-trichlorophenoxy)-compound with 2,2'2"-nitrilotris [ethanol] (1:1).	.....	.....
2,4,5-T esters	2545597	2,4,5-trichlorophenoxyacetic esters .....	.....	.....
2,4,5-T salts	93798	.....	.....	.....
2,4,5-T salts	61792072	.....	.....	.....
2,4,5-T salts	1928478	.....	.....	.....
2,4,5-T salts	25168154	.....	.....	.....
2,4,5-T salts	13560991	Acetic acid (2,4,5-trichlorophenoxy)-sodium salt.	.....	.....
TDE	72548	DDD .....	.....	.....
2,4,5-TP acid	93721	Propanoic acid 2-(2,4,5-trichlorophenoxy) .....	.....	.....
2,4,5-TP esters	32534955	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-, isoctyl ester.	.....	.....
Tetraethyl lead	78002	Lead tetraethyl, TEL .....	.....	.....
Tetraethyl pyrophosphate	107493	TEPP .....	.....	.....
Thallium sulfate	10031591	.....	.....	.....
Toluene	7446186	.....	.....	.....
Toxaphene	108883	Toluol, methylbenzene, phenylmethane, Methacide.	.....	.....
Trichlorfon	8001352	Camphchlor .....	.....	.....
Trichlorfon	52686	Dipterex .....	.....	.....
Trichlorethylene	79016	Ethylen trichloride .....	.....	.....
Trichlorophenol	25167822	Collunosol, Dowicide 2 or 2S, Omal, Phenachlor.	(2,3,4-)	15950660
			(2,3,5-)	933788
			(2,3,6-)	933755
			(2,4,5-)	95954
			(2,4,6-)	88062
			(3,4,5-)	609198
Triethanolamine dodecylbenzenesulfonate.	27323417	.....	.....	.....

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Triethylamine	121448	.....	.....	.....
Trimethylamine	75503	TMA .....	.....	.....
Uranyl acetate	541093	.....	.....	.....
Uranyl nitrate	10102064	.....	.....	.....
	36478769	.....	.....	.....
Vanadium pentoxide	1314621	Vanadic anhydride, vanadic acid anhydride .....	.....	.....
Vanadyl sulfate	27774136	Vanadic sulfate, vanadium sulfate .....	.....	.....
Vinyl acetate	108054	Acetic acid ethylene ether .....	.....	.....
Vinyldene chloride	75354	1,1-dichlorethylene .....	.....	.....
Xylene (mixed)	1330207	Dimethylbenzene	m-	108383
		Xylool	o-	95476
			p-	106423
Xylenol	1300716	Dimethylphenol, hydroxydimethylbenzene .....	.....	.....
Zinc acetate	557346	.....	.....	.....
Zinc ammonium chloride	14639975	.....	.....	.....
	14639986	.....	.....	.....
	52628258	.....	.....	.....
Zinc borate	1332076	.....	.....	.....
Zinc bromide	7699458	.....	.....	.....
Zinc carbonate	3486359	.....	.....	.....
Zinc chloride	7646857	Butter of zinc .....	.....	.....
Zinc cyanide	557211	.....	.....	.....
Zinc fluoride	7783495	.....	.....	.....
Zinc formate	557415	.....	.....	.....
Zinc hydrosulfite	7779864	.....	.....	.....
Zinc nitrate	7779886	.....	.....	.....
Zinc phenolsulfonate	127822	Zinc sulfocarbolate .....	.....	.....
Zinc phosphide	1314847	.....	.....	.....
Zinc silicofluoride	16871719	Zinc fluosilicate .....	.....	.....
Zinc sulfate	7733020	White vitriol, zinc vitriol, white copperas .....	.....	.....
Zirconium nitrate	13746899	.....	.....	.....
Zirconium potassium fluoride	16923958	.....	.....	.....
Zirconium sulfate	146444612	Disulfatozirconic acid .....	.....	.....
Zirconium tetrachloride	10026116	.....	.....	.....

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER

CAS No.	Common name
50000	Formaldehyde
50293	DDT
51285	2,4-Dinitrophenol
52686	Trichlorfon
56382	Parathion
56724	Coumaphos
57249	Strychnine
57749	Chlordane
58899	Lindane
60004	Ethylenediaminetetraacetic acid (EDTA)
60571	Dieldrin
62533	Aniline
62737	Dichlorvos
63252	Carbaryl
64186	Formic acid
64197	Acetic acid
65850	Benzoic acid
67663	Chloroform
71432	Benzene
72208	Endrin
72435	Methoxychlor
72548	TDE
74895	Monomethylamine
74908	Hydrogen cyanide
74931	Methyl mercaptan
75047	Monoethylamine
75070	Acetaldehyde
75150	Carbon disulfide
75207	Calcium carbide

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
75445	Phosgene
75503	Trimethylamine
75649	tert-Butylamine
75865	Acetone cyanohydrin
75990	2,2-Dichloropropionic acid
76448	Heptachlor
78002	Tetraethyl lead
78795	Isoprene
78819	iso-Butylamine
79094	Propionic acid
79312	iso-Butyric acid
79367	Acetyl chloride
80626	Methyl methacrylate
85007	Diquat
86500	Guthion
87865	Pentachlorophenol
88755	o-Nitrophenol
91203	Naphthalene
91225	Quinoline
93765	2,4,5-T acid
93798	2,4,5-T ester
94111	2,4-D ester
94757	2,4-D acid
94791	2,4-D ester
94804	2,4-D Butyl ester
95476	o-Xylene
95487	o-Cresol
98011	Furfural
98884	Benzoyl chloride
98953	Nitrobenzene

§ 116.4

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
99650	m-Dinitrobenzene
100027	p-Nitrophenol
100254	p-Dinitrobenzene
100414	Ethylbenzene
100425	Styrene
100447	Benzyl chloride
100470	Benzonitrile
105464	sec-Butyl acetate
106423	p-Xylene
106445	p-Cresol
107028	Acrolein
107051	Allyl chloride
107131	Acrylonitrile
107153	Ethylenediamine
107186	Allyl alcohol
107493	Tetraethyl pyrophosphate
107926	n-Butyric acid
108054	Vinyl acetate
108247	Acetic anhydride
108316	Maleic anhydride
108383	m-Xylene
108394	m-Cresol
108463	Resorcinol
108883	Toluene
108907	Chlorobenzene
108952	Phenol
109739	n-Butylamine
109897	Diethylamine
110167	Maleic acid
110178	Fumaric acid
110190	iso-Butyl acetate
110827	Cyclohexane
115297	Endosulfan
115322	Dicofol
117806	Dichlone
121211	Pyrethrin
121299	Pyrethrin
121448	Triethylamine
121755	Malathion
123626	Propionic anhydride
123864	n-Butyl acetate
123922	iso-Amyl acetate
124403	Dimethylamine
124414	Sodium methylate
127822	Zinc phenolsulfonate
133062	Captan
142712	Cupric acetate
143339	Sodium cyanide
151508	Potassium cyanide
298000	Methyl parathion
298044	Disulfoton
300765	Naled
301042	Lead acetate
309002	Aldrin
315184	Mexacarbate
329715	2,5-Dinitrophenol
330541	Diuron
333415	Diazinon
506774	Cyanogen chloride
506876	Ammonium carbonate
506967	Acetyl bromide
513495	sec-Butylamine
528290	o-Dinitrobenzene
540885	tert-Butyl acetate
541093	Uranyl acetate
542621	Barium cyanide
543908	Cadmium acetate
544183	Cobaltous formate
554847	m-Nitrophenol
557211	Zinc cyanide
557346	Zinc acetate

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
557415	Zinc formate
563122	Ethion
573568	2,6-Dinitrophenol
592018	Calcium cyanide
592041	Mercuric cyanide
592858	Mercuric thiocyanate
592870	Lead thiocyanate
625161	tert-Amyl acetate
626380	sec-Amyl acetate
628637	n-Amyl acetate
631618	Ammonium acetate
815827	Cupric tartrate
1066304	Chromic acetate
1066337	Ammonium bicarbonate
1072351	Lead stearate
1111780	Ammonium carbamate
1185575	Ferric ammonium citrate
1194656	Dichlobenil
1300716	Xylenol
1303282	Arsenic pentoxide
1303328	Arsenic disulfide
1303339	Arsenic trisulfide
1309644	Antimony trioxide
1310583	Potassium hydroxide
1310732	Sodium hydroxide
1314621	Vanadium pentoxide
1314803	Phosphorus pentasulfide
1314847	Zinc phosphide
1314870	Lead sulfide
1319773	Cresol (mixed)
1320189	2,4-D ester
1327533	Arsenic trioxide
1330207	Xylene
1332076	Zinc borate
1333831	Sodium bifluoride
1336216	Ammonium hydroxide
1336363	Polychlorinated biphenyls
1338245	Naphthenic acid
1341497	Ammonium bifluoride
1762954	Ammonium thiocyanate
1863634	Ammonium benzoate
1918009	Dicamba
1928387	2,4-D esters
1928478	2,4,5-T ester
1928616	2,4-D ester
1929733	2,4-D ester
2545597	2,4,5-T ester
2764729	Diquat
2921882	Chlorpyrifos
2944674	Ferric ammonium oxalate
2971382	2,4-D ester
3012655	Ammonium citrate, dibasic
3164292	Ammonium tartrate
3251238	Cupric nitrate
3486359	Zinc carbonate
5893663	Cupric oxalate
5972736	Ammonium oxalate
6009707	Ammonium oxalate
6369966	2,4,5-T ester
7428480	Lead stearate
7440235	Sodium
7446084	Selenium oxide
7446142	Lead sulfate
7447394	Cupric chloride
7558794	Sodium phosphate, dibasic
7601549	Sodium phosphate, tribasic
7631892	Sodium arsenate
7631905	Sodium bisulfite
7632000	Sodium nitrite
7645252	Lead arsenate
7646857	Zinc chloride

§ 116.4

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
7647010	Hydrochloric acid
7647189	Antimony pentachloride
7664382	Phosphoric acid
7664393	Hydrofluoric acid
7664417	Ammonia
7664939	Sulfuric acid
7681494	Sodium fluoride
7681529	Sodium hypochlorite
7697372	Nitric acid
7699458	Zinc bromide
7705080	Ferric chloride
7718549	Nickel chloride
7719122	Phosphorus trichloride
7720787	Ferrous sulfate
7722647	Potassium permanganate
7723140	Phosphorus
7733020	Zinc sulfate
7758294	Sodium phosphate, tribasic
7758943	Ferrous chloride
7758954	Lead chloride
7758987	Cupric sulfate
7773060	Ammonium sulfamate
7775113	Sodium chromate
7778441	Calcium arsenate
7778509	Potassium bichromate
7778543	Calcium hypochlorite
7779864	Zinc hydrosulfite
7779886	Zinc nitrate
7782505	Chlorine
7782630	Ferrous sulfate
7782823	Sodium selenite
7782867	Mercurous nitrate
7783359	Mercuric sulfate
7783462	Lead fluoride
7783495	Zinc fluoride
7783508	Ferric fluoride
7783564	Antimony trifluoride
7784341	Arsenic trichloride
7784409	Lead arsenate
7784410	Potassium arsenate
7784465	Sodium arsenite
7785844	Sodium phosphate, tribasic
7786347	Mevinphos
7786814	Nickel sulfate
7787475	Beryllium chloride
7787497	Beryllium fluoride
7787555	Beryllium nitrate
7788989	Ammonium chromate
7789006	Potassium chromate
7789062	Strontium chromate
7789095	Ammonium bichromate
7789426	Cadmium bromide
7789437	Cobaltous bromide
7789619	Antimony tribromide
7790945	Chlorosulfonic acid
8001352	Toxaphene
10022705	Sodium hypochlorite
10025873	Phosphorus oxychloride
10025919	Antimony trichloride
10026116	Zirconium tetrachloride
10028225	Ferric sulfate
10028247	Sodium phosphate, dibasic
10039324	Sodium phosphate, dibasic
10043013	Aluminum sulfate
10045893	Ferrous ammonium sulfate
10045940	Mercuric nitrate
10049055	Chromous chloride
10099748	Lead nitrate
10101538	Chromic sulfate
10101630	Lead iodide
10101890	Sodium phosphate, tribasic

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
10102064	Uranyl nitrate
10102188	Sodium selenite
10102440	Nitrogen dioxide
10102484	Lead arsenate
10108642	Cadmium chloride
10124502	Potassium arsenite
10124568	Sodium phosphate, tribasic
10140655	Sodium phosphate, dibasic
10192300	Ammonium bisulfite
10196040	Ammonium sulfite
10361894	Sodium phosphate, tribasic
10380297	Cupric sulfate, ammoniated
10415755	Mercurous nitrate
10421484	Ferric nitrate
10588019	Sodium bichromate
11115745	Chromic acid
12002038	Cupric acetoarsenite
12054487	Nickel hydroxide
12125018	Ammonium fluoride
12125029	Ammonium chloride
12135761	Ammonium sulfide
12771083	Sulfur chloride
13597994	Beryllium nitrate
13746899	Zirconium nitrate
13765190	Calcium chromate
13814965	Lead fluoborate
13826830	Ammonium fluoborate
13952846	sec-Butylamine
14017415	Cobaltous sulfate
14216752	Nickel nitrate
14258492	Ammonium oxalate
14307358	Lithium chromate
14307438	Ammonium tartrate
14639975	Zinc ammonium chloride
14639986	Zinc ammonium chloride
14644612	Zirconium sulfate
15699180	Nickel ammonium sulfate
16721805	Sodium hydrosulfide
16871719	Zinc silicofluoride
16919190	Ammonium silicofluoride
16923958	Zirconium potassium fluoride
25154545	Dinitrobenzene
25154556	Nitrophenol
25155300	Sodium dodecylbenzenesulfonate
25167822	Trichlorophenol
25168154	2,4,5-T ester
25168267	2,4-D ester
26264062	Calcium dodecylbenzenesulfonate
27176870	Dodecylbenzenesulfonic acid
27323417	Triethanolamine dodecylbenzenesulfonate
27774136	Vanadyl sulfate
28300745	Antimony potassium tartrate
30525894	Paraformaldehyde
36478769	Uranyl nitrate
37211055	Nickel chloride
42504461	Dodecylbenzenesulfonate isopropanolamine
52628258	Zinc ammonium chloride
52740166	Calcium arsenite
53467111	2,4-D ester
55488874	Ferric ammonium oxalate
61792072	2,4,5-T ester

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